

s/n: 09/939,422

date: 1-18-05

slm or dmd or (spatial adj2 light adj2 mirror) or (digital adj2 mirror adj2 display) or micro\$2mirror or		
13009 (micro\$2electr\$5mechanical with (mirror or reflect\$3))	US-PGPUB; USPAT; IBM_TDB	1/18/05 12:46
29 1 and (magnet same coil same gimbal)	US-PGPUB; USPAT; IBM_TDB	1/18/05 12:46
1 ("6369400").PN.	US-PGPUB; USPAT; USOCR; IBM_TDB	1/18/05 14:22
0 ("6369400").URPN.	USPAT	1/18/05 15:27
1 ("6467345").PN.	US-PGPUB; USPAT; USOCR; IBM_TDB	1/18/05 15:30
1 ("5606447").PN.	US-PGPUB; USPAT; USOCR; IBM_TDB	1/18/05 15:30
((("4479388") or ("5283491") or ("5606447") or ("5644177") or ("5867302") or ("6028689") or ("6094293") or ("6300733") or ("6369400") or		
10 ("6483962")).PN.	US-PGPUB; USPAT; USOCR; IBM_TDB	7/12/04 10:28
9 coil with mirror with torsion\$5 with hinge	US-PGPUB; USPAT; IBM_TDB	7/12/04 10:27
6 6388789.URPN.	USPAT	7/12/04 10:20
574 gimbal with coil	US-PGPUB; USPAT; IBM_TDB	7/12/04 8:30
((359/223-226,290-291,295,298,302,315,318,850,871,872,877).CCLS.) and		
12 (gimbal with coil)	US-PGPUB; USPAT; IBM_TDB	7/12/04 8:30
369 (gimbal with coil) same magnet\$5	US-PGPUB; USPAT; IBM_TDB	7/12/04 8:29
((359/223-226,290-291,295,298,302,315,318,850,871,872,877).CCLS.) and		
12 ((gimbal with coil) same magnet\$5)	US-PGPUB; USPAT; IBM_TDB	7/12/04 8:29
((((359/223-226,290-291,295,298,302,315,318,850,871,872,877).CCLS.) and ((gimbal with coil) same magnet\$5)) not (((359/223-226,290-291,295,298,302,315,318,850,871,872,877).CCLS.) and		
2 ((gimbal with coil) same mirror same magnet\$5))	US-PGPUB; USPAT; IBM_TDB	7/12/04 8:29
35 (gimbal with coil) same mirror same magnet\$5	US-PGPUB; USPAT; IBM_TDB	7/12/04 8:28
((359/223-226,290-291,295,298,302,315,318,850,871,872,877).CCLS.) and		
10 ((gimbal with coil) same mirror same magnet\$5)	US-PGPUB; USPAT; IBM_TDB	7/12/04 8:24
65 (oppos\$5 adj winding) same coil same magnet	US-PGPUB; USPAT; IBM_TDB	7/12/04 8:23
747 (opposite with winding) same coil same magnet	US-PGPUB; USPAT; IBM_TDB	7/12/04 8:07
(359/223-226,290-		
4308 291,295,298,302,315,318,850,871,872,877).CCLS.	US-PGPUB; USPAT; USOCR; IBM_TDB	7/12/04 8:06
(359/223-226,290-		
4512 291,295,298,302,315,318,850,871,872,877).CCLS.	US-PGPUB; USPAT; USOCR; IBM_TDB	7/12/04 8:06
((opposite with winding) same coil same magnet) and		
((359/223-226,290-		
2 291,295,298,302,315,318,850,871,872,877).CCLS.)	US-PGPUB; USPAT; IBM_TDB	7/12/04 8:06
1 ("6044705").PN.	US-PGPUB; USPAT; USOCR; IBM_TDB	7/12/04 7:09
(feedback with coil) and (((micro\$2mirror or ((micro adj electr\$4 adj mechanic\$4) same (mirror or reflect\$5)) or (digital adj micro\$4 adj mirror) or DMD)) and		
7 (electr\$5magnet\$5))	US-PGPUB; USPAT; IBM_TDB	7/10/04 13:40

6534	(micro\$2mirror or ((micro adj electr\$4 adj mechanic\$4) same (mirror or reflect\$5)) or (digital adj micro\$4 adj mirror) or DMD)	US-PGPUB; USPAT; IBM_TDB	7/10/04 13:39
1166	((micro\$2mirror or ((micro adj electr\$4 adj mechanic\$4) same (mirror or reflect\$5)) or (digital adj micro\$4 adj mirror) or DMD)) and (electr\$5magnet\$5)	US-PGPUB; USPAT; IBM_TDB	7/10/04 13:39
328735	(mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD)	US-PGPUB; USPAT; IBM_TDB	7/10/04 13:38
9536	(micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD)	US-PGPUB; USPAT; IBM_TDB	7/10/04 13:38
1654	coil same magnet same (mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD)	US-PGPUB; USPAT; IBM_TDB	7/10/04 13:37
32	feedback with (excitation adj coil)	US-PGPUB; USPAT; IBM_TDB	7/10/04 13:37
5679	feedback with coil	US-PGPUB; USPAT; IBM_TDB	7/10/04 13:37
2	((359/239).CCLS.) and (feedback with coil)	US-PGPUB; USPAT; IBM_TDB	7/10/04 13:37
2	(feedback with (excitation adj coil)) and mirror	US-PGPUB; USPAT; IBM_TDB	7/10/04 13:36
89	(359/239).CCLS.	US-PGPUB; USPAT; USOCR; IBM_TDB	7/10/04 13:36
0	(feedback with (excitation adj coil)) and magnte\$5	US-PGPUB; USPAT; IBM_TDB	7/10/04 13:34
25	feedback same angle same deflection same coil	US-PGPUB; USPAT; IBM_TDB	3/19/04 15:20
317	feedback same angle same deflection	US-PGPUB; USPAT; IBM_TDB	3/19/04 15:19
120	(feedback same angle same deflection) and (mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD)	US-PGPUB; USPAT; IBM_TDB	3/19/04 15:17
12	(feedback same angle same deflection) and (micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD)	US-PGPUB; USPAT; IBM_TDB	3/19/04 15:17
88	((feedback same angle same deflection) and (mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD)) not "359"/\$.ccls.	US-PGPUB; USPAT; IBM_TDB	3/19/04 15:16
3	((338/47).CCLS.) and torsion and angle	US-PGPUB; USPAT; IBM_TDB	3/19/04 15:15
1	("5648618").PN.	US-PGPUB; USPAT; USOCR; IBM_TDB	3/19/04 15:10
177	(338/47).CCLS.	US-PGPUB; USPAT; USOCR; IBM_TDB	3/19/04 15:10
6	6392220.URPN.	USPAT	3/19/04 11:23
51	5648618.URPN.	USPAT	3/19/04 11:20
1	("6580846").PN.	US-PGPUB; USPAT; USOCR; IBM_TDB	3/19/04 10:50
1	("6044705").PN.	US-PGPUB; USPAT; USOCR; IBM_TDB	3/19/04 10:50
5	("4365863" "5524153" "6097858" "6210401" "6344912").PN.	USPAT	3/19/04 10:39
0	6580846.URPN.	USPAT	3/19/04 10:38
30	(magnet\$5 adj actuator) and micromirror	US-PGPUB; USPAT; IBM_TDB	3/19/04 10:37
4	6181460.URPN.	USPAT	3/19/04 10:31
10	((("4479388") or ("5283491") or ("5606447") or ("5644177") or ("5867302") or ("6028689") or ("6094293") or ("6300733") or ("6369400") or ("6483962"))).PN.	US-PGPUB; USPAT; USOCR; IBM_TDB	3/19/04 10:28
1	("5778513").PN.	US-PGPUB; USPAT; USOCR; IBM_TDB	3/19/04 10:28
0	6369400.URPN.	USPAT	3/19/04 10:26
1	6313905.PN.	USPAT	3/19/04 10:26

28 (array near2 mirror) and gimbal and coils and magnets	US-PGPUB; USPAT; IBM_TDB	3/19/04 10:19
31 5969465.URPN.	USPAT	3/9/04 15:21
23 5543956.URPN.	USPAT	3/9/04 15:17
7 5107366.URPN.	USPAT	3/9/04 15:15
electromagnetic same magnet same (mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or		
486 (digital adj micro\$4 adj mirror) or DMD or pixel)	US-PGPUB; USPAT; IBM_TDB	3/9/04 15:13
((((359/223-226,290- 291,295,298,302,315,318,850,871,872,877) or (345/55,85,108,111)).CCLS.) and (electromagnetic same magnet same (mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj		
64 mirror) or DMD or pixel))	US-PGPUB; USPAT; IBM_TDB	3/9/04 15:13
((((359/223-226,290- 291,295,298,302,315,318,850,871,872,877) or (345/55,85,108,111)).CCLS.) and (electromagnetic same magnet same (mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj		
61 mirror) or DMD or pixel))) and coil\$3	US-PGPUB; USPAT; IBM_TDB	3/9/04 15:13
(mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD		
411991 or pixel)	US-PGPUB; USPAT; IBM_TDB	3/9/04 15:11
((((mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD or pixel)) and (feedback with deflection with detect\$5))		
25 and mirror) and magnet	US-PGPUB; USPAT; IBM_TDB	3/9/04 15:11
((mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD		
108 or pixel)) and (feedback with deflection with detect\$5)	US-PGPUB; USPAT; IBM_TDB	3/9/04 15:05
((((mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD or pixel)) and (feedback with deflection with detect\$5))		
94 and mirror	US-PGPUB; USPAT; IBM_TDB	3/9/04 15:05
((mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD		
22 or pixel)) and (feedback with angular with deflection)	US-PGPUB; USPAT; IBM_TDB	3/9/04 15:04
((mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD		
464 or pixel)) and (feedback with deflection)	US-PGPUB; USPAT; IBM_TDB	3/9/04 15:04
("4229081" "4317611" "4580873" "4725127" "5042889" "5216490" "5579148" "5729642" "5808780" "5912608" "5923798" "5956292"		
15 "6005993" "6031947" "6049404").PN.	USPAT	3/9/04 14:10
6 6388789.URPN.	USPAT	3/9/04 14:09
1 ("5912608").PN.	US-PGPUB; USPAT; USOCR; IBM_TDB	3/9/04 14:04
1 ("5629790").PN.	US-PGPUB; USPAT; USOCR; IBM_TDB	3/9/04 14:04
30 6201629.URPN.	USPAT	3/9/04 13:50
2 ("5606447" "5912608").PN.	USPAT	3/9/04 13:44
0 6122089.URPN.	USPAT	3/9/04 13:44

34	((mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD or pixel)) and ((electro\$2magnetic adj actuator) same (permanent adj magnet))) and array	US-PGPUB; USPAT; IBM_TDB	3/9/04 13:42
16	5912608.URPN.	USPAT	3/9/04 13:42
353	(electro\$2magnetic adj actuator) same (permanent adj magnet)	US-PGPUB; USPAT; IBM_TDB	3/9/04 13:33
79	((mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD or pixel)) and ((electro\$2magnetic adj actuator) same (permanent adj magnet))	US-PGPUB; USPAT; IBM_TDB	3/9/04 13:33
15	((359/223-226,290-291,295,298,302,315,318,850,871,872,877) or (345/55,85,108,111)).CCLS.) and (((micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) with mirror) or (digital adj micro\$4 adj mirror) or DMD or pixel)) and (electro\$2magnetic adj actuator))	US-PGPUB; USPAT; IBM_TDB	3/9/04 13:32
122	((micro\$2mirror or ((micro adj electr\$4 adj mechanic\$4) with mirror) or (digital adj micro\$4 adj mirror) or DMD or pixel)) and (electro\$2magnetic adj actuator)	US-PGPUB; USPAT; IBM_TDB	3/9/04 13:27
127347	(micro\$2mirror or ((micro adj electr\$4 adj mechanic\$4) with mirror) or (digital adj micro\$4 adj mirror) or DMD or pixel)	US-PGPUB; USPAT; IBM_TDB	3/9/04 13:26
4537	electro\$2magnetic adj actuator	US-PGPUB; USPAT; IBM_TDB	3/9/04 13:26
15	("4229732" "4441791" "5172262" "5311360" "5517359" "5610757" "5661592" "5748172" "5768009" "5867302" "5926309" "5999303" "6025951" "6028689" "6445502" "2001/0028756" "2002/0031305").PN.	USPAT	3/9/04 11:17
3	("4421381" "5629790" "5748172").PN.	USPAT	3/9/04 11:12
16	Asada-Norihiro.in. and mirror	EPO; JPO	3/9/04 11:09
1	("5748172").PN.	US-PGPUB; USPAT; USOCR; IBM_TDB	3/9/04 11:09
1		50950 EPO; JPO	3/9/04 11:07
66	Asada-Norihiro.in.	EPO; JPO	3/9/04 11:07
1	WO00/50950	US-PGPUB; USPAT; IBM_TDB	3/9/04 11:06
0	WO00/50950	EPO; JPO	3/9/04 11:06
13	((345/111).CCLS.) and mirror	US-PGPUB; USPAT; IBM_TDB	3/9/04 11:05
6	5748172.URPN.	USPAT	3/9/04 11:01
108	(345/111).CCLS.	US-PGPUB; USPAT; USOCR; IBM_TDB	3/9/04 10:58
3964	((359/223-226,290-291,295,298,302,315,318,850,871,872,877) or (345/55,85,108,111)).CCLS.) and ((mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD or pixel))	US-PGPUB; USPAT; IBM_TDB	3/9/04 10:57
4	("5498312" "5606447" "6295154" "6430332" "2001/0022682" "2002/0018615" "2002/0034024" "2002/0034026" "2002/0070335" "2002/0074310" "2002/0075553" "2002/0118429").PN.	USPAT	3/9/04 10:57
315435	((mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD)	US-PGPUB; USPAT; IBM_TDB	3/9/04 10:37

31071	(micro\$2mirror or ((micro adj electr\$4 adj mechanic\$4) with mirror) or (digital adj micro\$4 adj mirror) or DMD or pixel) with array	US-PGPUB; USPAT; IBM_TDB	3/9/04 10:37
39	((micro\$2mirror or ((micro adj electr\$4 adj mechanic\$4) with mirror) or (digital adj micro\$4 adj mirror) or DMD) with array) and ((coil or winding) same magnet)	US-PGPUB; USPAT; IBM_TDB	3/9/04 10:36
677	((((359/223-226,290-291,295,298,302,315,318,850,871,872,877) or (345/55,85,108,111)).CCLS.) and ((micro\$2mirror or ((micro adj electr\$4 adj mechanic\$4) with mirror) or (digital adj micro\$4 adj mirror) or DMD or pixel) with array))	US-PGPUB; USPAT; IBM_TDB	3/9/04 10:36
0	((coil or winding) same (array near2 magnet)) and (((359/223-226,290-291,295,298,302,315,318,850,871,872,877) or (345/55,85,108,111)).CCLS.) and ((micro\$2mirror or ((micro adj electr\$4 adj mechanic\$4) with mirror) or (digital adj micro\$4 adj mirror) or DMD or pixel) with array))	US-PGPUB; USPAT; IBM_TDB	3/9/04 10:36
0	((coil or winding) same (array near2 magnet)) and (((micro\$2mirror or ((micro adj electr\$4 adj mechanic\$4) with mirror) or (digital adj micro\$4 adj mirror) or DMD) with array) and ((coil or winding) same magnet))	US-PGPUB; USPAT; IBM_TDB	3/9/04 10:36
21	((((359/223-226,290-291,295,298,302,315,318,850,871,872,877) or (345/55,85,108,111)).CCLS.) and ((micro\$2mirror or ((micro adj electr\$4 adj mechanic\$4) with mirror) or (digital adj micro\$4 adj mirror) or DMD or pixel) with array)) and ((coil or winding) same magnet)	US-PGPUB; USPAT; IBM_TDB	3/9/04 10:36
1640	((micro\$2mirror or ((micro adj electr\$4 adj mechanic\$4) with mirror) or (digital adj micro\$4 adj mirror) or DMD) with array	US-PGPUB; USPAT; IBM_TDB	3/9/04 10:35
4992	((359/223-226,290-291,295,298,302,315,318,850,871,872,877) or (345/55,85,108,111)).CCLS.	US-PGPUB; USPAT; USOCR; IBM_TDB	3/9/04 10:35
638	((coil or winding) same (array near2 magnet))	US-PGPUB; USPAT; IBM_TDB	3/9/04 10:30
0	((coil or winding) same (array near2 magnet)) and ((micro\$2mirror or ((micro adj electr\$4 adj mechanic\$4) with mirror) or (digital adj micro\$4 adj mirror) or DMD) with array)	US-PGPUB; USPAT; IBM_TDB	3/9/04 10:29
14	((coil or winding) same (array near2 magnet)) and ((micro\$2mirror or ((micro adj electr\$4 adj mechanic\$4) with mirror) or (digital adj micro\$4 adj mirror) or DMD or pixel))	US-PGPUB; USPAT; IBM_TDB	3/9/04 10:27

<p>((micro\$2mirror or ((micro adj electr\$4 adj mechanic\$4) with mirror) or (digital adj micro\$4 adj mirror) or DMD or pixel))) not (((359/223-226,290-291,295,298,302,315,318,850,871,872,877).CCLS.) and ((mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD)) and ((coil or winding) same (array near2 magnet)))</p>	<p>US-PGPUB; USPAT; IBM_TDB</p>	<p>3/9/04 10:27</p>
<p>12 and (((coil or winding) same (array near2 magnet)) and ((micro\$2mirror or ((micro adj electr\$4 adj mechanic\$4) with mirror) or (digital adj micro\$4 adj mirror) or DMD or pixel))) not (((359/223-226,290-291,295,298,302,315,318,850,871,872,877).CCLS.) and ((mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD)) and ((coil or winding) same (array near2 magnet)))</p>	<p>US-PGPUB; USPAT; IBM_TDB</p>	<p>3/9/04 10:27</p>
<p>3 and (((359/223-226,290-291,295,298,302,315,318,850,871,872,877).CCLS.) and ((mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD)) and ((coil or winding) same (array near2 magnet)) (coil same magnet same (mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD or (spatial adj light adj modulator) or SLM)) and (array near2 magnets) 1 6144119.URPN.</p>	<p>US-PGPUB; USPAT; IBM_TDB</p>	<p>3/9/04 10:24</p>
<p>52 ("3851196" "4555650" "4654571" "5153494" "5196745" "5334892" "5528118" "5623853" 10 "5715037" "5773837").PN.</p>	<p>US-PGPUB; USPAT; IBM_TDB USPAT</p>	<p>3/9/04 10:19 3/9/04 8:43</p>
<p>104 (coil same magnet same (mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD or (spatial adj light adj modulator) or SLM)) and (inner same outer same frame) ((coil same magnet same (mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD or (spatial adj light adj modulator) or SLM)) and (inner same outer same frame)) and (array near2 magnets)</p>	<p>US-PGPUB; USPAT; IBM_TDB</p>	<p>3/9/04 8:39</p>
<p>115 (coil same magnet same (mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD or (spatial adj light adj modulator) or SLM)) and gimbal</p>	<p>US-PGPUB; USPAT; IBM_TDB</p>	<p>3/9/04 8:38</p>
<p>1658 coil same magnet same (mirror or micro\$2mirror or (micro adj electr\$4 adj mechanic\$4) or (digital adj micro\$4 adj mirror) or DMD or (spatial adj light adj modulator) or SLM)</p>	<p>US-PGPUB; USPAT; IBM_TDB</p>	<p>3/9/04 8:35</p>

((coil same magnet same (mirror or micro\$2mirror or
(micro adj electr\$4 adj mechanic\$4) or (digital adj
micro\$4 adj mirror) or DMD or (spatial adj light adj
modulator) or SLM)) and gimbal) and (array with
8 magnets)

US-PGPUB; USPAT; IBM_TDB

3/9/04 8:35